

### **REMARKS**

Claims 1 and 26-27 are the claims presently pending in this application. Claim 1 has been amended to more particularly define the claimed invention. Claims 26 and 27 have been added to claim additional features of the claimed invention

Applicant respectfully submits that entry of the currently amended claim is proper because the currently amended claims will either place the application in condition for allowance or in better form for appeal. Applicant further respectfully submits that no new matter is added to the currently amended claims, nor has the scope of the pending claims changed. Accordingly, no new issues are raised that necessitate a further search of art. Applicant respectfully traverses the rejections based on the following discussion.

Applicant has changed each occurrence of “placement” to “position,” and is supported in the Specification, for example, at page 4, lines 1-2, that state, “Once the relationship has been established, optimization of item placements in a catalog is carried out at step 204. In this step, an optimal position for each item in the catalog is determined.” (Emphasis added.) Thus, it is clearly shown from Applicant’s Specification that an “item placement” is directed toward “an optimal position.”

#### **I. REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH**

Claim 1 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner states in the Non-Final Rejection that, “[t]he term "same group of users" and "different groups of users" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably

apprised of the scope of the invention.”

However, Applicant respectfully traverses this rejection and maintains that the Specification at page 5, lines 5-9, reproduced below, clearly supports this claim language.

Though a number of catalogs are deployed, a group of users can view only one catalog over a given period of time. Thus a number of catalogs being referred to are the different catalogs for the different user groups over the same period of time. Also a number of different catalogs are presented to the same group of users at different periods of time. (Emphasis added.)

Applicant believes the Specification clearly demonstrates that these two scenarios exist:

(1) where a number of different catalogs are each directed toward a different user group, i.e., “different groups of users,” during the same period of time, (e.g., at Time=1, Catalog A → Group A, Catalog B → Group B, ... Catalog X → Group X); and

(2) where different catalogs are presented to the same user group, i.e., “same group of users,” over different periods of time, (e.g., at Time=1, Catalog 1 → Group A; Time=2, Catalog 2 → Group A; ... Time=N, Catalog N → Group A). In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Additionally, support for the amendment to claim 1 further clarifying these features, i.e., “where said different and same group of users can view only one said different catalogs over a particular period of time,” has support in Applicant’s Specification at page 5, lines 5-9.

## **II. THE PRIOR ART REJECTION**

Claim 1 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Abrahams, U.S. Pat. No. 6, 985, 897, (hereinafter “Abrahams”), further in view of Linden, et al., U.S. Pat. App. Pub. No. 2002/0019763, (hereinafter “Linden”). This rejection is respectfully traversed in view of the following discussion.

Abrahams and Linden disclose retrieving and sorting display data based on stored user “personalization” data, while Applicant’s claimed invention *obtains user responses for the initial catalogs, wherein the plurality of initial catalogs refer to any of different catalogs ...where said different and same group of users can view only one said different catalogs over a particular period of time.*

The Examiner admits that Abrahams fails to teach or suggest, “Abrahams fails to disclose determining an optimized position for each item using the estimated relationships; and forming a catalog with the items being placed at determined optimized positions; deploying a plurality of initial catalogs with different item placements; and obtaining user responses for the initial catalogs, wherein the plurality of initial catalogs refer to any of different catalogs for different groups of users over a same period of time, different catalogs for a same group of users over different periods of time, and a combination of both, wherein the step of estimating a relationship between placement of the items in a catalog and corresponding user responses comprises the steps of: computing item differentials from the user responses; and computing search costs from the user responses, wherein the step of computing item differentials comprises the steps of: computing an effect of the nature of an item on said user responses; and computing an effect of the nature of an item on said user responses for other items in the catalog, wherein the step of computing search costs comprises the steps of: computing an effect of placing an item at a particular position in the catalog on said user responses; and computing an effect of relative positions of items on said user responses, wherein the step of determining an optimized position comprises the steps of: modeling a merchant specified objective as an optimization function in terms of item placement, item differentials, and search costs; and evaluating the optimization function to identify an optimal placement of each item in the catalog.

However, with respect to Applicant's independent claim 1, Linden fails to disclose, *"obtaining user responses for the initial catalogs, wherein the plurality of initial catalogs refer to any of different catalogs for different groups of users over a same period of time, different catalogs for a same group of users over different periods of time, and a combination of both, where said different and same group of users can view only one said different catalogs over a particular period of time,"* since the disclosure of Linden is concerned with processes that indicate user interests in particular products or other items, and for using such information to identify items that are related to one another, for example, between products within an online catalog are determined by identifying products that are frequently viewed by users within the same browsing session. (See Abstract.)

Additionally, with respect to Applicant's independent claims 26 and 27, Linden fails to teach or suggest, *"modeling a merchant specified objective as an optimization function in terms of item differentials,"* of claim 26, and *"modeling a merchant specified objective as an optimization function in terms of search costs,"* of claims 27.

The Examiner states that Applicant's *"item differentials,"* are taught by Linden at "[0055]: the examiner notes the use of current and/or recent carts for the differential)." However, Applicant's claim language is directed toward *"item differentials,"* not items in current or recent carts as disclosed by Linden. Applicant directs the Examiner to Applicant's Specification, page 7, lines 19 to 25 that states:

Item differential quantifies user responses based on the nature of the item. For example, consider the case of a catalog of varied kinds of books. In this case, nature of the book can relate to the publisher of the book, price of book, writer of book, and the like. Nature of the book can also relate to the field of the book. For example, the book can be a science fiction, comic book, history, autobiography and the like. If user response data indicates that the number of clicks for history books is very low, then the item differential will quantify this information, thereby

differentiating a history book from another type of a book.

Additionally, the Examiner states that Applicant's "search costs" are taught by Linden at "[0093]: the examiner notes the sorting in order of highest-to-lowest and [0096]: the examiner notes list of the top M items of the recommendations list are returned)." However, Applicant's claim language is directed toward "search costs," not items sorted in order of highest-to-lowest as disclosed by Linden. Applicant directs the Examiner to Applicant's Specification, page 6, lines 1 to 7 that states:

Another class of catalog parameter is called the search cost parameters. Search cost parameter quantify the effect of placement of items on user responses. One of the parameters in this category quantifies the effect of placement of an item in a catalog on user response. In case an item is placed at the top of a catalog, then it receives more user responses as compared to when it is placed at the bottom. This is so because an item placed at the top is immediately noticed by a user browsing through a catalog compared to an item placed at the bottom or middle of the catalog.

Therefore, Abrahams and Linden disclose retrieving and sorting display data based on stored user "personalization" data, while Applicant's claimed invention *obtains user responses for the initial catalogs, wherein the plurality of initial catalogs refer to any of different catalogs ...where said different and same group of users can view only one said different catalogs over a particular period of time*, and "*modeling a merchant specified objective as an optimization function in terms of item differentials*," and "*in terms of search costs*."

Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw this rejection since the alleged prior art references to Abrahams and Linden (either alone or in combination) fail to teach or suggest each element and feature of Applicant's claimed invention.

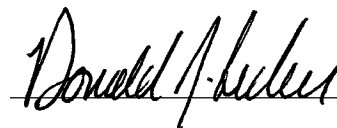
### III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1, 26 and 27 the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 09-0441.

Respectfully Submitted,



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Date: September 17, 2008

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